

distance = rate · time

Group Members: \_\_\_\_\_

Working as a team solve each problem using  $d = rt$  formula. Make sure you are following your role within the team. We should be "bouncing" ideas off of one another by asking questions, clarifying what was said, adding information to the problem, and/or suggestions for solving. By the time you solve these problems everyone in your group should know exactly how to do it so make sure everyone understands the problem and how to work it out. You are solving algebraically.

- Mrs. Ulasewicz drives into the city to buy a software program at a computer store. Because of traffic conditions, she averages only 15 mi/h. On her drive home she averages 35 mi/h. If the total travel time is 2 hours, how long does it take her to drive to the computer store?

	d	r	t
To	equal	15 mi/h	t
Back		35 mi/h	2 - t

$$rt = rt$$

$$15t = 35(2 - t)$$

$$15t = 70 - 35t$$

$$+35t \quad \quad +35t$$

$$\frac{50t}{50} = \frac{70}{50}$$

$$t = 1 \frac{2}{5}$$

$$t = 1 \frac{2}{5} \text{ hours}$$

- On his way to work from his home, Mr. Burton averaged 20 miles per hour. On his drive home, he averaged 40 miles per hour. If the total travel time was  $1 \frac{1}{2}$  hours, how long did it take him to drive to work? How far does he drive one way to get to work?

	d	r	t
To	equal	20 mi/h	t
From		40 mi/h	$1 \frac{1}{2} - t$

$$20t = 40(1 \frac{1}{2} - t)$$

$$20t = 60 - 40t$$

$$+40t \quad \quad +40t$$

$$\frac{60t}{60} = \frac{60}{60}$$

$$t = 1 \text{ hour}$$

$$d = rt$$

$$d = 20(1)$$

$$d = 20 \text{ miles}$$